

our front and perhaps only 15 yards away, was a tiger, ghostly gray in the moonlight but recognizable by its shape and gait. A few moments later I put up my rifle and switched on the torch, but the apparition instantly vanished; the few, bare, intervening twigs reflected back the light dazzlingly, so that nothing beyond the nearer ones could be seen. And who has not observed this effect from a single leaf or twig near the front of a torch? In such circumstances the most brilliant light has not sufficient 'depth of penetration' to aid the eye. And, similarly, I have seen the eyes of a tiger at about 20 yards almost blacked out by the reflection from a bunch of leaves above the beam from my torch. And, after all, how much of the body behind brilliantly blazing eyes is ever revealed by the torch? Even the outline of the head cannot be clearly discerned!

So, to my mind, to follow up a wounded tiger (or, especially, a panther) at night might well be a game which is not worth the great risk involved. And I think that the most difficult part of such an undertaking must lie in the preliminary following of the animal's tracks and other signs, including the recognition of any but a heavy blood-trail (torch directed at the *ground*!).

Nevertheless, it has been done successfully; and perhaps the physical condition of the wounded tiger had contributed to that. So one must suppose that a tremendous amount of luck entered into it too, and that the pitcher did not go too often to the well!

RATNA COTTAGE,
FERNHILL (NILGIRIS),
January 22, 1957.

K. BOSWELL,
(Capt.)

5. FURTHER NOTES ON THE HIMALAYAN MOUSE-HARE, OR PIKA, (*OCHOTONA RUFESCENS*)

Last year I collected several specimens of the Baluch Pika *Ochotona rufescens vulturina* Thomas¹ a subspecies of the Afghan Pika, from the Munna Valley (8,000 ft.) about ten miles west of Ziarat and about sixty miles north-west of Quetta.

The type specimens of the Afghan species described by Gray in 1842 were captured from Bagha-i-Babar, two miles south-west of Kabul in Afghanistan. I paid a number of visits to the Baber Gardens during my recent stay in Kabul, but in spite of careful search was unable to find any pika living there. The animal appears to have totally disappeared, owing probably to the reconstruction of the tomb of the great king and other alterations made in the Gardens during recent years. I did, however, notice the animal inhabiting the neighbourhood of the city (*JBNHS*, 45: 82), in the rocky hills of Tungi-a-Syyedan about nine miles south-west of Kabul. I also found it at Surchashma sixty miles south-west and, in August 1946,

¹ According to Ellerman and Morrison-Scott (Checklist of Palaearctic Mammals: 453) *vulturina* is an aberrant form based on one specimen only (the type from Harboi, near Kelat, Baluchistan) and may not belong to the species *rufescens*.—Eps.

in Durra-i-Shaidan about a hundred and thirty miles north-west of that city. The Durra is a valley beyond Bamian (8,000 ft.) on the way to Bund-i-Amir in Hazārajaat. Further north it is stated (P.Z.S. 1848: 800) to occur in Grishk.

We find, among early records, Alexander Burns (Cabooli, 1842, p. 163) saying: 'In Kohistan, the most active search is made for all animals which yield fur . . . There are eight or ten different species to be found here, amongst which are . . . and the Hazāra rat, which is a creature without a tail.' This tailless creature is doubtless an Afghan pika and it is evident from the statement that it also occurs in Kohistan, a province north-east of Kabul. The pika, as I was informed, is common in Hazārajaat, the central plateau of Afghanistan, and this seems to be correct because the two places mentioned above (Surchashma and Durra-i-Shaidan) lie on the borders of Hazārajaat. It is natural that the animal should be called in some districts '*Mūsh-i-Hazāra*' or the Hazāra rat. It is interesting to note that Alexander Burns was presented with the Hazāra rat as one of the fur-bearing animals having commercial importance!

In most species of small rodents a cycle of abundance alternating with scarcity is known to occur, but little is recorded about the Himalayan Mouse-Hare. I was able to observe the phenomenon in the case of the Surchashma pikas. In 1939, while walking along a rill on the hillside, I noticed a pika (for the first time in that country) sitting on a rock. I advanced stealthily and threw a stone at it, which accidentally killed the animal on the spot. Next year I attempted in vain to kill another animal in the same manner. But in 1941, I noticed that the numbers of the animal had greatly decreased and it was with much difficulty that I was able to obtain one. Unfortunately this too was badly damaged and bruised like the last specimen. When I visited the place again in 1942 I completely failed to notice the animal in spite of sufficient search, and it appeared to have totally vanished. On discussing the matter of its disappearance, some of the local cultivators told me that periodically the animals migrated to some distant place while others held that some sort of disease spread among them and decimated them. When I had another chance to visit the place in 1943 I found the animals there but was unable to procure a specimen myself. Consequently I sent word around offering a reward for each specimen whether alive or dead. Returning after two hours from a round along the adjoining hills, I was surprised to find myself surrounded by men, women, and children, some with wire traps, others with box traps, containing two, three, or even four pikas in each, while other villagers held the animals—one, two, or three together—by their ears or wrapped up within their garments. This scene as well as my own observations assured me that the animals were present in far greater abundance than in any of the previous years.

The villagers of the Munna Valley, however, seemed to be unacquainted with the cyclic fluctuation in the numbers of the animals, but the pikas were certainly present in large numbers this year. One would be peeping out of its hole among loose stones, another carrying straw, while another would be sitting on a rock on its haunches and sniffing the surrounding air as if to examine the

environment. The inhabitants here have no idea of pulling the animal out of its hole by its ears as the Surchashma boys sometimes do; they usually shoot them. Almost every man possesses a matchlock to guard his family but, since cartridges are difficult to procure in these remote regions, the hunters carry with them a quantity of powder and a lead wire. Whenever required they load up with some powder, add pieces of lead cut from the wire, and shoot. In this way they shot several pikas for me. They are good marksmen and hardly ever miss.

During a talk the inhabitants complained of the pikas being a great menace to their cultivation. They remarked that some English people had introduced these creatures (which they call '*mushai*') into the country from some foreign land a century ago. As proof of this they added that certain Englishmen were used to visiting these parts very often in order to look after the animals and to ascertain their welfare!

WEST REGIONAL LABORATORIES,
P.C.S.I.R.,
LAHORE,
December 10, 1956.

S. A. AKHTAR

6. A NOTE ON INSECTS CONSUMED AS FOOD BY SQUIRRELS AND BIRDS AT KUNDRI FOREST, PALAMAU DISTRICT, BIHAR

With a view to ascertain the agencies responsible for a new type of damage to living lac cells observed at Kundri forest, Palamau District, Bihar, a large number of squirrels and birds found on the lac-bearing trees at the time of occurrence of the damage were shot and their stomach contents examined for the presence of lac insects. During the examination a large number of insects besides the lac insects were also encountered and this note records the species of insects consumed as food by these animals.

It is seen from the results that besides lac insects, termites, ants, grasshoppers, beetles, lepidopterous larvae and moths, bugs, wasps, lice, and mites were traced in the stomach contents.

Lac Insects: These are consumed freely by the common Five-striped Squirrel (*Funambulus pennanti* Wroughton) and to some extent by the Goldenbacked and Mahratta woodpeckers and the Redvented Bulbul. The number of each of these bird species was comparatively small in the area and they were found distributed throughout the forest; whereas the squirrels were more common and seen in greater concentration in the coupe that was under lac infection. Further, the fact that 23 squirrels out of the 36 examined contained lac insects ranging between 1 and 134 establishes beyond doubt that the squirrels are responsible for the huge destruction of lac insects at maturity of the lac crop in summer.

Termites: The mound-building termite species *Odontotermes obesus* (Rambur) which attacks *palas* trees (*Butea monosperma*) was